03050108-05

(Enoree River)

General Description

Watershed 03050108-05 (formerly the Enoree River portion of 03050108-050) is located in Newberry and Laurens Counties and consists primarily of the ***Enoree River*** and its tributaries from Duncan Creek to its confluence with the Broad River. The watershed occupies 43,303 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 78.7% forested land, 8.5% agricultural land, 6.9% forested wetland, 4.6% urban land, 0.6% scrub/shrub land, 0.4% barren land, and 0.3% water.

This segment of the Enoree River accepts drainage from its upstream reaches, together with Sulphur Spring Branch, Collins Branch, and the Indian Creek Watershed. South Fork Kings Creek (Little Kings Creek, Means Branch) enters the river near the City of Newberry followed by Fosters Branch, Quarters Branch, and Subers Creek. The entire watershed resides within the Sumter National Forest and the Enoree River Waterfowl Area is located near the confluence with the Broad River. There are a total of 73.6 stream miles and 19.5 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

Station #	Type	Class	Description
B-799	BIO	FW	KINGS CREEK AT US 176, DOWNSTREAM OF BRIDGE
B-054	P/INT	FW	ENOREE RIVER AT S-36-45, 3.5 MI ABOVE CONFLUENCE WITH BROAD RIVER

Kings Creek (B-799) - Aquatic life uses are partially supported based on macroinvertebrate community data.

Enoree River (B-054) - Aquatic life uses are partially supported due to occurrences of copper in excess of the aquatic life chronic criterion. Significant increasing trends in dissolved oxygen concentration and decreasing trends in five-day biochemical oxygen demand and total phosphorus concentration suggest improving conditions for these parameters. There is a significant increasing trend in pH. Very high concentrations of cadmium were measured in the 2001-2004 sediment samples. In addition, DDE (a metabolite of DDT) was detected in the 2002 sediment sample and dibutyl phthalate was detected in the 2004 sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. Recreational uses are partially supported due to fecal coliform bacteria excursions; however, a significant decreasing trend in fecal coliform bacteria concentration suggests improving conditions for this parameter.

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME *FACILITY TYPE*	*PERMIT #* *STATUS*
SHAKESPEARE LANDFILL - NEWBERRY INDUSTRIAL	IWP-159 INACTIVE

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
CLARK BROTHERS FARM LLC CLARK-ENOREE SAND MINE #1	1540-87 SAND

Growth Potential

There is a low potential for growth in this watershed. The watershed is effectively excluded from development by residing in the Sumter National Forest.

Watershed Protection and Restoration Strategies

Total Maximum Daily Loads (TMDLs)

A TMDL was developed for SCDHEC and approved by EPA for fecal coliform bacteria in the **Enoree River** at water quality monitoring site ***B-054***. This section of the Enoree, upstream of its confluence with the Broad River, flows through the Sumter National Forest and has no NPDES dischargers. The watershed is not within a Municipal Separate Storm Sewer System (MS4) designated area. Possible sources of fecal coliform bacteria in this section of the Enoree River include upstream sources, failing onsite wastewater disposal systems, cattle in creeks, pets, and wildlife. The TMDL specifies a reduction in the load of fecal coliform bacteria into the Enoree River of 60 % in order for the river to meet the recreational use standard. Funding for TMDL implementation activities is currently available. For more information, see the Bureau of Water web page www.scdhec.gov/water or call the Watershed Program at (803) 898-4300.

Special Projects

TMDL Implementation for the Enoree River Basin

Twenty-three water quality monitoring stations in the Enoree River basin have been placed on the South Carolina §303(d) list of impaired waters for violations of the fecal coliform bacteria standard. The 730 square mile basin is composed of mostly forest (70%) with some pastureland (10%) and cropland (10%). The basin has several municipalities that have or may receive Municipal Separate Storm Sewer System (MS4) permits. There are 10 active continuous point sources discharging fecal coliform bacteria in the Enoree River basin of South Carolina. The Project addresses several strategies for TMDL implementation through the development and promotion of measures focused at reducing fecal coliform contamination from non-point sources. Clemson University has partnered with the Natural Resource Conservation Service, the Soil and Water Conservation District and the Cattlemen's Association of five counties to implement a

fecal coliform TMDL for the Enoree River. This three-year project seeks to reduce the amount of fecal coliform bacteria at ten DHEC water quality monitoring stations so that water quality standards will be met. Clemson is leading the effort by educating property owners on proper septic system maintenance as well as best management practices to reduce bacteria coming from agricultural areas. They have also hosted River Sweeps and educational programs for school-aged children across the watershed. In addition to these educational efforts, project staff are recruiting landowners to install best management practices on farms and to repair failing septic systems within the watershed. It is anticipated that the behavior changes resulting from this project's educational efforts, combined with the best management practices throughout the watershed will reduce the fecal coliform loading to the Enoree River as called for by the TMDL.